REMARKS

Claims 1-51 are now pending. No claims stand allowed.

Claims 5-8, 25, 27-29, and 33-51 have been cancelled, without prejudice.

Claims 1-4, 9-24, 26, and 30-32 have been amended to further particularly point out and distinctly claim subject matter regarded as the invention. New claims 52-62 have been added by this amendment and also particularly point out and distinctly claim subject matter regarded as the invention. No new matter has been introduced by the amendment.

The 35 U.S.C. § 102 Rejection

Claims 9, 36-37, and 47-48 stand rejected under 35 U.S.C. §102(e) as being allegedly anticipated by Farber et al. (U.S. Pat. No. 6,185,598). The rejection is respectfully traversed.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 869 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). *See also*, M.P.E.P. §2131.

Claim 9, as amended, defines a local server for maintaining a call placed from a call-in user to a data communications network, the network including a backup server, and a network access server (NAS) coupling the call to the network, the NAS having a

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memory associated therewith. As recited in claim 9, the local server includes (a) an encoder for generating an information packet associated with the call, the information packet containing call information for maintaining connection to the local server, and (b) a sender for transmitting the information packet from the encoder to the memory, the information packet being stored in the memory to be available to the backup server if the local server fails.

Farber discloses a network environment **100** including an origin server **102** and replicated servers (repeaters) **104 (104a-104c)**. When a client **106** requests resources from the origin server **102**, a reflector **108** intercepts the request and either makes the request be served locally by the origin server **102** or forwards it to one of the repeaters (column 5, lines 3-15). Instead of returning the requested resources to the client, the origin server **102** may also send back a reply (with a new URL) to the client so that the client resends the request to another server having that URL (column 7, lines 26-35). In Farber, however, the response by the origin server (or reflector) to the client request only contains the requested resources, or information regarding the location of the requested resource, but does not disclose any response or massage containing call information for maintaining connection of the call to the local server, as recited in claim 9.

Furthermore, as the Examiner correctly noted in the Office Action, Farber does not contemplate necessity of backup or detection of any failure of a server. In addition, Farber does not disclose or teach a memory storing the call information to be available to a replicated server or any other server when the origin server fails. Thus, Farber does not

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disclose or teach storing the information packet in the memory so as to be available to the backup server if the local server fails, as recited in claim 9.

In addition, as discussed below in detail, Arnon also fails to provide these claimed features.

Other rejected claims 36-37 and 47-48 have been canceled without prejudice. Accordingly, it is respectfully requested that the rejection of claims based on Farber be withdrawn. In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

The 35 U.S.C. § 103 Rejection

Claims 1-8, 10-35, 38-46, and 49-51 stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Farber in view of Arnon et al. (U.S. Pat. No. 6,242,999). This rejection is respectfully traversed.

According to M.P.E.P. §2143,

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.

Claim1, as amended, defines a backup server for maintaining a call placed from a
call-in user to a data communications network, the network including a local server
servicing the call, and a network access server (NAS) for coupling the call to the local
server, the NAS having a memory associated therewith. As recited in claim 1, the backup
server includes (a) an information packet requester responsive to the local server failure,
the information packet requester requesting and receiving from the memory an
information packet associated with the call, the information packet containing call
information for maintaining connection of the call to the local server, and (b) a parser for
reconstructing the call information from the information packet, whereby the backup
server maintains the call to the network.

As discussed above, Faber neither teaches nor suggests the call information for
maintaining connection of the call to the local server. Thus, Faber does not teach or
suggest (a) an information packet requester for requesting an information packet
containing the call information, or (b) a parser for reconstructing the call information.

Arnon teaches a backup system for restoring information lost from the master
device (mass storage subsystem 12(m)). During a backup operation, a backup subsystem
13 of Arnon receives the information to be backed up from the mass storage subsystem
12(m) and maintains the information in the backup media module 15 thereof (column 3,
lines 50-59). If the information in the mass storage subsystem 12(m) is lost due to
malfunction or failure of the master device, the previously backed-up information is
retrieved from the backup media module 15 and restored in the mass storage subsystem
12(m) during a restore operation (column 3, line 66 to column 4, line 5). However,

Arnon does not teach or suggest that the information to be backed up is related to a call

from a call-in user, or maintaining connection of the call to a network. Arnon does not

suggest or mention any call from the user to the network or any connection between a

user and the network. Thus, Arnon does not teach or suggest the call information, the

information packet requester for requesting the information packet containing the call

information, or the parser for reconstructing the call information, as claimed in claim 1.

Accordingly, Farber, whether considered alone or combined with or modified by

Arnon, does not teach or suggest the information packet requester or the parser as

claimed in claim 1. Thus, it is respectfully requested the rejection based on Farber and

Arnon be withdrawn.

Claim 13, 17, 20, and 30, as amended, also recite the call information as discussed

above, and include similar distinctive features of receiving, transmitting, storing, or

parsing the information packet containing the call information. Therefore, these claims

are also allowable at least for the same reasons set forth above. Other independent claims

5, 25, 33, 38-39, 44, and 49-50 which stand rejected and their dependent claims have

been canceled without prejudice.

In view of the foregoing, it is respectfully asserted that the claims are now in

condition for allowance.

Dependent Claims

Claims 2-4 depend from claim 1, claims 10-12 depend from claim 9, claims 14-16 depend from claim 13, claim 18-19 depend from 17, claim 21-24 and 26 depend from claim 20, and claim 31-32 depend from claim 30, and thus include the limitations of the respective independent claims. The argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Request for Allowance

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

The Commissioner is hereby authorized to charge any fees which may be

required, or credit any overpayment, to Deposit Account Number 50-1698.

Respectfully submitted,
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Dated: March ___5___, 2003

Masako Ando
Limited Recognition under 37 CFR §10.9(b)

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Version with Markings to Show Changes Made

1. (Once Amended)   A backup server for maintaining a call placed from a call-in user to [enabling] a data communications network, the [to recover from a local server failure, said data communications] network including a local server servicing the call, and a network access server (NAS) for coupling the [a] call to the local server, the [placed from a call-in user to said data communications network and a failure detector for detecting said local server failure, said] NAS having a memory associated therewith [memory, said NAS connected to said network], said backup server comprising:

an information packet requester [a server-state attribute (SSA) receiver] responsive to the local server failure, the information packet requester requesting and [detector for] receiving from the [associated] memory an information packet associated with the call, the [upon an occurrence of the local server failure, wherein said] information packet containing call information for maintaining connection of the call to the local server [characterizes a plurality of SSA information data associated with the call placed to the NAS by the call-in user;

a memory reader for reading said information packet from said SSA receiver]; and

a parser for reconstructing the call [said plurality of SSA] information [data] from the [said] information packet, whereby [from said memory reader, so that] the backup server [can] maintains [recover] the call to the [data communications] network.

2. (Once Amended)   A backup server according to claim 1 wherein the call information includes server-state attribute (SSA) having [said information packet consists of] an attribute/value pair that can be parsed into a plurality of separate data entries.

3. (Once Amended)   A backup server according to claim 1 wherein the [said] information packet further includes [comprises] a plurality of aggregated data elements from a call attribute table.

4. (Once Amended)   A backup server according to claim 3 wherein the [said] plurality of aggregated data elements [of said information packet] are separated by said parser for reconstructing the call [said plurality of SSA] information [data] from the [said] information packet.

5-8. (Canceled)

9. (Once Amended)   A local server for maintaining a call placed from a call-in user to [enabling] a data communications network, the [to recover from a local server failure, said data communications] network including a backup server and a network access server (NAS) [for] coupling the [a] call [placed from a call-in user] to the [said data communications] network, the [and a failure detector for determining if said local server failure has occurred, said] NAS having a memory [an] associated with the NAS [memory, said NAS connected to said network], said local server comprising:

an encoder for generating an information packet associated with the call, the [wherein said] information packet containing call information for maintaining connection of the call to the local server [characterizes a plurality of server-state attribute (SSA) information data associated with the call]; and

a sender for transmitting the [said] information packet [associated with the call] from the [said] encoder to the [associated] memory, the information packet being stored in the memory to be available to the backup server if the local server fails.

10. (Once Amended) A local server according to claim 9 wherein the call information includes server-state attribute (SSA) having [said information packet consists of] an attribute/value pair that can be parsed into a plurality of separate data entries.

11. (Once Amended) A local server according to claim 9 wherein the [said] information packet further includes [comprises] a plurality of aggregated data elements from a call attribute table.

12. (Once Amended) A local server according to claim 11 wherein the [said] plurality of aggregated data elements [of said information packet] are separated by said parser for reconstructing the call [said plurality of SSA] information [data] from the [said] information packet.

13. (Once Amended) A system for maintaining a call placed by a call-in user to [server enabling] a data communications network, the [to recover from a local server failure, said data communications] network including a network access server (NAS) for coupling the [a] call [placed from a call-in user] to the [said data communications] network, a local server servicing the call, a backup server, and a failure detector for detecting a failure of the [determining if said] local server [failure has occurred], the system [said NAS having an associated memory, said NAS connected to the network, said server] comprising:

a memory associated to the NAS;

an encoder associated with the local server for generating an information packet,

wherein the [said] information packet containing call information for maintaining

connection of the call to the local server [characterizes a plurality of server-state

attribute (SSA) information data associated with the call];

a sender for transmitting the [said] information packet from said encoder to said

memory associated with the NAS, the information packet being stored in said [to which

the call is coupled for storing in the associated] memory;

a call coupler associated with the NAS for coupling the call to the local server if the

local server does not fail, and for coupling the call to the backup server if the local

server fails;

an information packet forwarder for transmitting the information packet [a receiver

responsive to the failure detector for receiving] from said [the] associated memory to

the backup server if the local server fails [an information packet associated with the call

upon an occurrence of the local server failure, wherein said information packet

characterizes a plurality of SSA information data associated with the call;

a memory reader for reading said information packet from said SSA receiver]; and

a parser associated with the backup server for reconstructing from the [said]

information packet [associated with] the call [into a plurality of SSA] information

[data], whereby [so that] the backup server can recover the call data and serve the call

without disconnecting the user from [to] the [data communications] network.

14. (Once Amended) A system [server] according to claim 13 wherein said information

packet forwarder includes:

an information packet requester associated with the backup server for requesting

the information packet from said memory associated with the NAS in response to the call

received from the NAS [consists of an attribute/value pair that can be parsed into a

plurality of separate data entries].

15. (Once Amended) A system [server] according to claim 14 [13] wherein said

information packet requester requests the information packet from said memory if the call

information is not available to the backup server [further comprises a plurality of ·

aggregated data elements from a call attribute table].

16. (Once Amended) A system [server] according to claim 14 [15] wherein said

[plurality of aggregated data elements of said] information packet forwarder further .

includes:

an [are separated by said parser for reconstructing said plurality of SSA

information data from said] information packet sender associated with the NAS, for

transmitting the information packet in response to a request from said information packet

requester.

17. (Once Amended) A network access server (NAS) for maintaining [enabling a data

communications network to recover from a local server failure and for coupling] a call

placed from a call-in user to a [said] data communications network, the [, said data

communications] network including a local server for servicing the call [generating an

information packet, wherein said information packet characterizes a plurality of server-

state attribute (SSA) information data associated with said call], and a backup server

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capable of servicing the call [for parsing said information packet to recover said plurality of SSA information data in the event that said local server failure occurs, said local server, said backup server and said NAS being connected to said network], said NAS comprising:

a receiver for receiving an [the] information packet from the local server, the information packet containing call information for maintaining connection of the call to the local server;

an associated memory for storing [recording] the information packet;

[a memory writer for writing the information packet from said receiver to said associated memory;]

a failure detector for determining if a failure of the local server [failure] has occurred;

a call coupler for coupling the call to the local server if the local server does not fail, and for coupling the call to the backup server in response to the failure of the local server;

[a memory reader for reading the information packet from said associated memory;] and

a sender for transmitting the information packet from the associated [said] memory [reader] to the backup server if the local server failure has occurred.

18. (Once Amended) A NAS according to claim 17 wherein the call [said] information [packet] includes server-state attribute (SSA) data having [consists of] an attribute/value pair that can be parsed into a plurality of separate data entries.

19. (Once Amended) A NAS according to claim 17 wherein the [said] information

packet further includes [comprises] a plurality of aggregated data elements from a call

attribute table.

20. (Once Amended) A server backup system for maintaining an ongoing [enabling a

network to recover a] call placed by a call-in user to a [said] network, the [from a server

access failure, said] network including a server servicing the call, a network access server

(NAS) coupling the call from the user to the server, and a memory associated with the

NAS [connected to said network and a failure detector connected to the network for

determining whether said server access failure has occurred, said memory and said failure

detector both associated with a network access server (NAS) that is connected to said

network], said system comprising:

a backup server connected to the network, said backup server being capable of [for]

servicing the call;

an encoder associated with the server, said encoder [for] generating an information

packet containing call information for maintaining connection of the call to the local

server [that characterizes a plurality of server-state attribute (SSA) information data

associated with the call];

a sender associated with the server, said sender transmitting the information packet

to the memory associated with the NAS, the memory storing the information packet;

a call coupler associated with the NAS, said call coupler rolling over the call to said

backup server if the server fails;

an information packet requester associated with said backup server, for requesting

the [a receiver responsive to the failure detector for reading said] information packet

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from the memory associated with the NAS in response to the call received from the NAS, if the call information is not available to the backup server[, said receiver associated with said server, said information packet in the memory upon an occurrence of the local server failure]; and

a parser associated with said backup server, for reconstructing the call [said plurality of SSA] information [data] from the [said] information packet[, and providing said plurality of SSA information data to said server, said parser associated with said server].

21. (Once Amended) A server backup system according to claim 20 wherein the call [said] information [packet] includes server-state attribute data having [consists of] an attribute/value pair that can be parsed into a plurality of separate data entries.

22. (Once Amended) A server backup system according to claim 20 wherein the [said] information packet further includes [comprises] a plurality of aggregated data elements from a call attribute table.

23. (Once Amended) A server backup system according to claim 22 wherein the [said] plurality of aggregated data elements of the [said] information packet are separated by said parser for reconstructing the call [said plurality of SSA] information [data] from said information packet.

24. (Once Amended) A server backup system [mechanism] according to claim 20 wherein the [said] server is a resource pool manager server (RPMS).

25. (Canceled)

26. (Once Amended) A server backup system according to claim 20, further comprising:

a failure detector associated with the NAS, for detecting the failure of the server

[25 wherein said information packet consists of an attribute/value pair that can be parsed

into a plurality of separate data entries].

27-29. (Canceled)

30. (Once Amended) A server backup system for maintaining an ongoing [enabling a

network to recover a] call placed by a call-in user to a [said] network, the [from a server

access failure, said network including a memory connected to said] network and a failure

detector connected to the network for determining whether said server access failure has

occurred, said memory and said failure detector both associated with a network access

server (NAS) that is connected to said network, said] system comprising:

a first server connected to the network for servicing the call;

a second server connected to the network for servicing the call if the first server

fails [access failure occurs]; and

a network access server (NAS) for coupling the call from the user to said first

server, and coupling the call to said second server if the first server fails, said NAS

including a memory associated therewith,

wherein said first server including:

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an encoder for generating an information packet, the [, said encoder associated with said first server, wherein said] information packet <u>containing call information for maintaining connection of the call to the first server</u> [characterizes a plurality of server-state attribute (SSA) information data associated with the call, said information packet further comprising a plurality of aggregated data elements from a call attribute table]; <u>and</u>

a sender for transmitting <u>the</u> [said] information packet from said encoder to the memory associated with the NAS, <u>the memory storing the information packet,</u> [said sender associated with said second server;]

<u>and wherein said second server including:</u>

<u>an information packet requester for requesting the</u> [a receiver responsive to the failure detector associated with the NAS for reading said] information packet from the memory <u>in response to the call received from the NAS, if the call information is not available to the second server</u> [upon an occurrence of the local server failure, said receiver associated with said second server, said information packet in the memory]; and

a parser for reconstructing <u>the call</u> [said plurality of SSA] information [data] from said information packet[, and providing said plurality of SSA information data to said second server, said parser associated with said second server].

31. (Once Amended) A server backup system according to claim 30 wherein said <u>NAS</u> [second server] further includes:

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a [data-caller responsive to the] failure detector for <u>detecting the failure of said second server</u> [requesting said information packet from the memory associated with the NAS].

32. (Once Amended) A server backup system according to claim <u>30</u> [31] wherein said first server is a resource pool manager server (RPMS) and said second server is a backup RPMS.

33-51. (Canceled)

52. (New)   A NAS according to claim 17 wherein said sender transmits the information packet in response to a request from the backup server.

53. (New)   A method for maintaining an ongoing call placed by a call-in user to a network, the network including a first server for servicing the call, a network access server (NAS) for coupling the call from the user to the server, a memory associated with the NAS, and a second server capable of servicing the call, said method comprising:

generating, at the first server, an information packet associated with the call, the information packet containing call information for maintaining connection of the call to the local server;

transmitting the information packet from the first server to the memory associated with the NAS, the memory storing the information packet;

coupling the call placed by the user from the NAS to the second server if the first server fails;

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transmitting the information packet from the memory associated with the NAS to

the second server; and

reconstructing the call information from the information packet at the second

server, thereby servicing the call without disconnecting the user from the network.

54. (New)   A method according to claim 53, further comprising:

detecting, at the NAS, failure of the first server.

55. (New)   A method according to claim 53, further comprising:

issuing, at the second server, a request for the information packet in response to the

call received from the NAS upon the failure of the first server.

56. (New)   A method according to claim 55 wherein the information packet is

transmitted from the memory to the second server in response to the request from the

second server.

57. (New)   A method according to claim 53 wherein the information packet is

transmitted from the memory to the second server only if the call information is not

available to the second server.

58. (New)   A method according to claim 53 wherein the call information includes

server-state attribute data having an attribute/value pair that can be parsed into a plurality

of separate data entries.

59. (New)   A method according to claim 58 herein the information packet further includes a plurality of aggregated data elements from a call attribute table.

60. (New)   A method according to claim 59 wherein the plurality of aggregated data elements of the information packet are separated by said parser from said information packet.

61. (New)   A method according to claim 53 wherein the first server is a resource pool manager server (RPMS).

62. (New)   A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for method for maintaining an ongoing call placed by a call-in user to a network, the network including a first server for servicing the call, a network access server (NAS) for coupling the call from the user to the server, a memory associated with the NAS, and a second server capable of servicing the call, the method comprising:

generating, at the first server, an information packet for each message in an active call, the information packet containing call information for maintaining connection of the call to the local server;

transmitting the information packet from the first server to the memory associated with the NAS, the memory storing the information packet;

coupling the call placed by the user from the NAS to the second server if the first server fails;

transmitting the information packet from the memory associated with the NAS to

the second server, if the call information is not available to the backup server; and

reconstructing the call information from the information packet at the second

server, thereby servicing the call without disconnecting the user from the network.